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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,528	06/30/2003	Jeffrey Gullicksen	10.0438	8227

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EXAMINER	
JEAN BART, RALPH	
ART UNIT	**PAPER NUMBER**
2631	

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/608,528	GULLICKSEN ET AL.	
	Examiner	Art Unit	
	Ralph Jean-Bart	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,8,6,7, 9,14 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Shiozawa (U.S publication No 2001/0005358).

With respect to claim 1, Shiozawa teaches a method of maintaining a network connection in an optical network (see abstract), the optical network including a plurality of switching nodes (see figure 1 elements 204A-204F) and an egress switching node (see figure 1 element 204F), a plurality of spans including working and protecting fibers operatively connecting the switching nodes (see figure1 elements 206.1-206.6), and carrying a plurality of channels (see paragraph 0002), obtaining channel assignment data including the channels assigned to the network connection on each of the plurality of spans used by the network connection (see paragraph 0010), propagating the channel assignment data to the switching nodes in the optical network (see paragraph 0047; see figure 3 elements packet distributor 257, 2441 - 244n), storing, at the switching nodes, the channel assignment data (see paragraph 0013), monitoring the

optical network for a failed span and notifying the optical network in response to the failed span (see paragraph 0043), the switching nodes perform a switching operation in response to the notification in order to switch the network connection to the protecting fibers (see figure 9; paragraph 0044), determining which channel the network connection utilized on the failed span based on the channel assignment data and the notification of the failed span (see paragraph 0045), and dropping the channel selected by said determining step from the protecting fiber at the egress switching node (see paragraph 007).

With respect to claim 8, Shiozawa teaches An egress optical switch node operatively connected to an optical network carrying a network connection using a plurality of channels and over a plurality of switching nodes connected by a plurality of spans including working and protecting fibers (see figure 1 elements 204F, 201, 203), a channel assignment database containing the channels assigned to the network connection on each of the plurality of spans used by the network connection (see figure 2 element 225), a controller operatively connected to said channel assignment database (see figure 1 element 231; paragraph 0013), said controller configuring the egress optical switch node to drop a selected channel from the protecting fiber in response to a switch operation on the optical network (see figure 4; paragraph 0059), said controller determining the selected channel by accessing the channel assignment database and according to which channel was utilized by the network connection on a working fiber of a failed span that triggered the switch operation (paragraph 0013).

With respect to claim 6 and 14, Shiozawa teaches the optical network is a ring network (see figure 1), the switching nodes perform a line switching operation in response to the notification in order to switch the network connection to the protecting fibers (see figure 6 table 210A).

With respect to claim 7 and 9, Shiozama teaches maintains a plurality of network connections (see figure 1), said obtaining step obtaining channel assignment data including the channels assigned to each of the network connections on each of the plurality of spans used by the network connections (see figure 1 elements 204A - 204D, 206.1-206.6), said monitoring step monitoring the optical network for a failed span and notifying the optical network in response to the failed span (see figure 8 element 341), the switching nodes perform a switching operation in response to the notification in order to switch the network connections to the protecting fibers (see paragraph 006), determining which channels the network connections utilized on the failed span based on the channel assignment data and the notification of the failed span (see figures , 6, 5, and 7), and dropping the channels selected by said determining step from the protecting fiber at the egress switching node(s) (see figure 10 element S375).

With respect to claim 14, Shiozama teaches, the optical network is a ring network (see figure 1), the switching nodes perform a line switching operation in response to the notification in order to switch the network connection to the protecting fibers (see figure 10, paragraph 0007).

With respect to claim 15, Shiozama teaches an optical network including an egress optical switch node (see figure 1 element 204F).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2,10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiozawa in View of Microsoft Dictionary.

With respect to claims 2 and 10, Shiozawa teaches all the limitations of claim 1 and 8. Shiozawa fails to teach the channels are wavelength division multiplexed channels and the optical network is a wavelength division multiplexed optical network.

see "dense wavelength division multiplexing", p.152.

However, Microsoft Dictionary teaches wavelength division multiplexed channels.

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to modify the packet protection technique of Shiozawa and Microsoft Dictionary in order to increase the carrying capacity of a single optical fiber as taught by Microsoft Dictionary definition.

Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiozawa in View of IEEE Dictionary.

With respect to claim 3 and 11, Shiozawa teaches all the limitations of claim 1 and 8. Shiozawa fails to teach channels are time division multiplexed channels and the optical network is a time division multiplexed optical network.

see "time-division multiplexing (TDM)", p. 1183

However, IEEE Dictionary teaches Time division multiplexed channels.

Therefore, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to modify the packet protection technique of Shiozawa and time division multiplexing technique of IEEE Dictionary. The motivation for this modification of Shiozawa is to provide a method of sharing a communication channel among several users by allowing each to use the channel for a given period of time as taught by IEEE dictionary definition.

Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiozawa (U.S. publication No 20010005358), IEEE Dictionary and further in view of Microsoft Dictionary.

With respect to claim 4 and 12, Shiozawa teaches all the limitation of claim 1 and 8. Shiozawa fails to teach the channels are time division multiplexed channels at least some of which are carried over different wavelengths and wherein the optical network is a TDM over W DM optical network.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have modified the optical network of Shiozawa and the TDM of IEEE dictionary over the WDM of Microsoft Dictionary in order to provide a method of sharing a

see "time-division multiplexing (TDM)"

see "dense wavelength division multiplexing"

communication channel among several users by allowing each to use the channel for a given period of time as taught by IEEE dictionary definition.

Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiozawa (U.S. publication No 20010005358) in View of de Boer et al (U.S. patent No 6,917,759).

With respect to claim 5 and 13, Shiozawa teaches all the limitation of claim 1 and 8. In addition, Shiozawa teaches wherein the optical fiber ring is compliant with SONET ("Synchronous Optical Network") or SDH ("Synchronous Data Handling") protocols (see paragraph 0006). Shiozawa fails to teach said controller receiving a K-byte in a SONET/SDH frame as the notification.

However, de Boer teaches said controller receiving a K-byte in a SONET/SDH frame as the notification (see column 10 lines 5-7).

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to modify the packet protection technique of Shiozawa and the Share Mesh Signaling Algorithm of de Boer. The motivation for this modification of Shiozawa is to provide data transmission around the ring as taught by de Boer (see de Boer column 2 lines 1-4).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ralph Jean-Bart whose telephone number is (571) 270-1017. The examiner can normally be reached on Monday to Thursday from 8 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Robertson, can be reached on 571-272-4186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RJB
Ralph Jean-Bart

08/10/2006

DAVID L. ROBERTSON
PRIMARY EXAMINER